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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,025	12/22/2004	Marina B Jensen	HOI-12402/16	1353
25006 7590 04/28/2008 GIFTORD, KRASS, SPRINKLE, ANDERSON & CITKOWSKI, P.C PO BOX 7021 TROY, MI 48007-7021				
EXAMINER DRODGE, JOSEPH W				
ART UNIT		PAPER NUMBER		
1797				
MAIL DATE		DELIVERY MODE		
04/28/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/519,025

**Applicant(s)**

JENSEN, MARINA B

**Examiner**

Joseph W. Drodge

**Art Unit**

1797

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 52-76 is/are pending in the application.
- 4a) Of the above claim(s) 52-63 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 64-76 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 52-63 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)  
Paper No(s)/Mail Date 03282005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

Claims 52-63 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on February 1, 2008.

Applicant's election of Group II, claims 64-76 in the reply filed on February 1, 2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

The requirement is still deemed proper and is therefore made FINAL.

Claims 64-76 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claims are rendered indefinite by the two different thickness ranges of layers claimed, one for gas and one for liquid. However, it is unclear how the thickness of a constructed device could vary or change depending upon what is passed through it? The applied prior art emphasizes such indefiniteness since it discloses a mixture of liquids and gases or fluids undergoing phase changes as occur in chemical and biological reactions and distillation.

In claim 76, it is unclear if the 3 types of gas in parenthesis constitute a limitation.

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 75 and 76 are rejected under 35 U.S.C. 101 because the "use" claims are not a statutory category of invention.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 64-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over one of Gohrt et al PBPUBS Document US 2004/0238443 (effective filing date of October 11, 2001, filing date of parent application 09/974,060) OR Publication DE 19701045 (Gorak et al) in view of EPO Publication 466,954 (Smith).

Gohrt discloses a substance-transferring device comprising layers of material containing the same or different types of liquid and/or gas, comprising a plurality of convective and receiving layers ("material separation elements and second functionality elements), means for conducting liquid flow through the layers in various directions, at least in part in a direction parallel to layer surfaces (figures 1,4,6, paragraphs 9,17, etc.) , with substances transferred to/from layers by way of adsorption, absorption and extraction (paragraphs 19-21). The device may also effect chemical and biological reactions, catalyzed reactions and distillation. A possible

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wide range of tailored unit dimensions ranging from mm to cm units is suggested at (paragraph 39.

Similarly Gorak et al disclose a very similar layered substance-transferring device or related device to that of Gohrt as shown in figures ( ), the description of Gorak et al in Gohrt serving as a rough translation of the Gorak et al document.

The claims differ in explicitly requiring layer thickness in the mm to cm range. However, Smith teaches a similar reaction and distillation column having layers of diverse material in the mm range of thickness. It would have been obvious to have designed the device of Gorak et al or Gohrt et al to have such thickness (pages 9 and 11), in order to optimize flow rates, reaction rates and sorption or extraction capacities.

Gohrt or Gorak also disclose the following for the dependent claims (paragraphs of Gohrt): layers being in a sandwich or stacked arrangement for claims 65-67 (paragraph 1); impermeable/sealing material for claim 68 (paragraph 40); the layers comprising the specific materials of claims 69-72 such as fibrous cloths and charcoal (paragraphs 14,15 etc.); figure 6 and paragraph 44 suggesting means for forcing flow , inherently requiring pumping for claim 73; paragraph 44 also suggesting a series arrangements of chambers, hence sorption/filtration elements or layers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Drodge at telephone number 571-272-1140. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the

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examiner's supervisor, David Roy Sample, can be reached at 571-272-1376. The fax phone number for the examining group where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR, and through Private PAIR only for unpublished applications. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JWD

4/18/2008

/Joseph W. Drodge/

Primary Examiner, Art Unit 1797